Seattle Public Utilities

**Broadview Sewer and Drainage Improvement Project**
Community Meeting Summary
Tuesday, March 18, 2014

**Background**
Seattle Public Utilities (SPU) hosted a community meeting on March 18, 2014 at Luther Memorial Church (13047 Greenwood Ave N) from 6:30 to 8:45 pm. The primary purpose of the meeting was to introduce the leading sewer solution alternatives for the 12th Avenue NW basin.

**Staff**
Seattle Public Utilities

- Celia Kennedy (Project Manager)
- Debbie Harris (Capital Program Manager)
- Dave Jacobs (Senior Civil Engineer)
- Rachel Garrett (Communications Lead)

Consultant team

- Bruce Ball (Brown & Caldwell)
- David Scott (TetraTech)
- Jeff Lykken (HDR)
- Penny Mabie (EnviroIssues)
- Adonis Ducksworth (EnviroIssues)

**Welcome and introductions**
Prior to the start of the meeting, attendees had the opportunity to review boards highlighting the project overview, goals and timeline. Attendees also had the opportunity to review basin maps, maps of reported drainage issues and the 2013 12th Avenue NW basin geotechnical study results.

Penny Mabie (facilitator) welcomed attendees to the meeting and reviewed the agenda. She noted that the primary purpose of the meeting was to introduce the leading 12th Avenue NW area sewer solution alternatives to the Broadview community. The meeting was also an opportunity for SPU staff to outline upcoming project milestones and public involvement opportunities throughout 2014. At the end of the presentation there would be time for questions and answers as well as an opportunity for attendees to meet one-on-one with the project team to discuss the options presented and specific issues.

**Presentation**
Penny introduced Celia Kennedy (SPU), Project Manager. Celia gave a presentation on the following topics:

- Improvements to the 12th Avenue NW and Dayton Avenue N basins, including sewer improvements

- Causes of sewer backups
    - Groundwater entering into sewer pipes through leaks in sewer pipes, tree roots and in some cases homeowners who have connected downspouts, foundation drains and sump pumps to the sewer
- Project goals, which are (1) to reduce the frequency and quantity of sewer backups into homes, properties, streets and creeks and (2) to reduce the frequency and quantity of stormwater flooding into areas most impacted, especially building structures
- Work that has been completed so far, including pilot projects and geotechnical investigations
- Future opportunities for public involvement

Celia introduced Jeff Lykken (TetraTech), who discussed the following topics regarding the leading sewer alternatives:

- Evaluation criteria used to select the leading alternatives
- The three leading alternatives, which include:
    - Reduce flows into sewer pipes and provide storage, if needed
    - Upsize sewer pipes and build storage in the 12th Avenue NW basin
    - Upsize sewer pipes and build storage in Carkeek Park or some other centralized location
- Respective costs, components, benefits and challenges of each alternative

**Question and answer session**

Penny started the question and answer session, and noted that attendees could ask SPU staff and the consultant team clarifying questions about the alternatives presented. Attendees also commented on the alternatives presented.

Questions and comments are outlined below. Answers to questions by City staff and the consultant team are noted in italics.

What does the process for "sealing" lines look like?

*We could use liners, pipe bursting and/or flood grouting. We would look at the best option for the project.*

Disconnecting private sump pumps and foundation drains from the side sewer could be invasive. How do you plan to do that?

*This process could be challenging and we would determine the best approach on a case-by-case basis. There is the possibility that we would need to skip some homes.*

With the second option presented (Upsize sewer pipes and build storage in the 12$^{th}$ Ave NW basin), you mention losing seven lots. What does that mean?

*To build this option, the space needed would be approximately the equivalent of seven private lots.*

What were the results of the flood grouting pilot?

*Flood grouting proved to be effective, removing 70% of peak flow from the system.*

With regard to siting storage tanks and private property, how would SPU go about acquiring private property?

*SPU would ideally purchase private property from willing sellers, similar to what we did for the Madison Valley Stormwater Project and for the Midvale Stormwater Facility.*

How long will the different solutions last?

*It depends on the solution. For pipe bursting, the solution is expected to last about 100 years. For flood grouting, the solution could last anywhere from 10 to 50 years, but has an average life expectancy of approximately 20 years.*

Why are you looking at solutions for the 12th Avenue NW basin when the sewer, stormwater and drainage problems begin higher in the watershed?

*Currently, SPU is looking at problems that occur within the 12th Avenue NW basin given the size and scale of issues in this area. SPU has separated the Broadview neighborhood into three sewer basins. The area we are call the 12th Avenue NW basin, all drains to Carkeek Pump Station through a pipe running down 12th Avenue. There is nothing "higher" in the watershed then this area, as this basin is physically separated from the sewer system east of 8th Avenue NW. Working on the sewers east of 8th Avenue NW would not have an impact on sewage issues in the 12th Avenue basin.*

*With regard to drainage, there is contributing area as far east as 3rd Avenue NW, outside the boundaries of what we call the 12th Ave basin. For drainage issues, SPU is looking outside the 12th Ave NW basin to improve the level of service.*

Do you have a comparison for how long it would to take to build the different alternatives?

*The timeline is dependent on several factors. For example, there could be a phased approach for the flow reduction alternative. If we pursued the Carkeek Park alternative, environmental, permitting and construction issues would play into the timeline. The convey and store alternative would be the quickest turnaround taking one year to design and approximately two to three years to build.*

What is SPU's alternative preference?

*At this stage, we want to hear your thoughts about the different alternatives.*

Is the 500,000 gallon storage tank you mentioned for the first alternative for storing drainage, and the 500,000 gallon storage tanks for the second two alternatives for storing sewage?

*Yes. The first alternative includes a sizeable stormwater pond for temporary stormwater storage. Alternatives two and three include large underground tanks for storing sewage* until there is capacity in the downstream system.

What about other stormwater storage solutions such as cisterns?

*This topic will be discussed at meetings later this year, when we will address drainage issues for the 12th Ave NW and Dayton Ave N basins.*

Does SPU's current rate structure enable you to pay for this project or will there be a rate increase?

*SPU is still determining rates for the next six years. SPU is considering different rate structure scenarios, as well as the possibility of taking other projects off the books to pay for this one.*

Do cost estimates factor in future work on the drainage system, including fixing existing storm drains?

*We will be looking into these costs at the meeting on drainage.*

What's the probability that any and or all of these alternatives will work?

*They should all work. Storing sewage is the most time-tested approach to reducing sewage backups. The major challenge is finding a storage space. There is less certainty about reducing sewage backups with regard to removing excess flows from the system, but that alternative was very effective in our pilot project The alternative that involves sealing the pipes also has a component of building a small sewer storage tank if we can't get all the way to the solution with sealing the pipes.*

Was there a problem in accessing private property during the flood grouting pilot project?

*SPU believes the process went smoothly.*

Can we see a preview of the sewer and drainage alternative combinations? Is one more or less expensive?

*We have not put this information all together yet, however we will provide this information at a later meeting.*

Is SPU aware whether those involved in the pilot project have experienced drainage issues?

*Yes, we have heard about some issues and we are talking to homeowners about them.*

Who is paying for this project and where is the money coming from?

*SPU rate payers are funding the project.*

Why not put storage pipes/tanks alongside the sewer and stormwater pipes underneath 12th Avenue NW and minimize purchasing private property?

*SPU will be looking into the idea of keeping storage underneath the public right of way to the greatest extent possible.*

What are you going to do with the surface runoff?

*That question will be addressed at the next meeting, which will focus on drainage for the 12th Ave NW basin.*

How will SPU manage the odor coming from sewage storage tanks?

*There are advanced methods to remove odors from tanks. These tanks would not be like sewage treatment facilities and would only hold water temporarily after significant storms, and then the water would be released into the main sewer system.*

Will there be coordination with the Seattle Department of Transportation (SDOT) when you do these projects? I feel the work they are doing is exacerbating these problems.

*Yes, we will be working closely with SDOT.*

Have you actually checked to see to how much water is going through Carkeek Park?

*We have done some investigations and if we pursue the option to place a storage tank in Carkeek Park, we will look more into that question.*

The first alternative presented states that up to 500,000 gallons of stormwater would need to be stored. Where would it be stored?

*SPU would likely store the stormwater in a stormwater pond in the lower part of the 12th Avenue NW basin.*

What is your plan for people not currently experiencing stormwater problems, but who may experience them in the future?

*SPU plans to set aside funds to address issues that may come up after the project is built.*

Bitter Lake seepage exacerbates the runoff problem, what is being done about that?

*At this stage, SPU is looking at stormwater issues; in general, we do not manage groundwater. With that said, if we seal the sewer pipes in the 12$^{th}$ basin we may be adding in trench drains in a number of locations for that water to flow into.*

Does your project planning include flexibility to pick, choose and combine alternatives?

*Yes. We also looked at medium level inflow and infiltration reduction solutions with sewer storage tanks that did not involve work on private properties; however, the water still tends to get into the sewer system so there was less certainty of these alternatives working.*

As SPU looks at Dayton Ave N basin alternatives, is sewer storage in Carkeek Park a viable alternative?

*If a sewer storage solution in Carkeek Park does not make sense for the 12th Avenue NW basin then it likely would not make sense for the Dayton Avenue N basin.*

What does King County have to say about your proposed alternatives?

*SPU is currently talking with the County and will continue to work closely with them.*

**Comments on Alternatives**

- Assuming all drainage options are equal, I prefer option one.
- Option #1 is green infrastructure while options two and three are grey infrastructure. Given those observations, I prefer option one especially if you pair it with a drainage solution.
- Solving the problem at the source makes sense but it doesn't seem fair when a few homes have to be given up when it's a mutual cost.
- It's hard to judge all three alternatives or even the first one when we don't know how the surface water issues will be addressed. With that said, I prefer alternatives two and three.
- I like alternative one because treatment plants would not have to take on more flow.

**Next Steps**

Celia outlined upcoming opportunities for public involvement including the next public meeting scheduled for late spring or early summer 2014. At this meeting, SPU plans to discuss the leading drainage alternatives for the 12th Avenue NW basin as well as the leading sewer options for the Dayton Avenue N basin.

Rachel Garrett (SPU) asked the audience what were some of the best ways for SPU to communicate with the Broadview community. E-mail updates to the project list serve and public meetings were mentioned as preferred methods of communication.

Rachel also provided attendees with different ways they could communicate with the City. The public can call the SPU emergency 24-7 response number at 206-386-1800 if a sewer backup occurs or their property is experiencing stormwater flooding. For questions specific to the Broadview Project, attendees and the public can access the project's website, email address and phone number.